

Claims

1. Multimeter instrument for measuring a plurality of variables, such as the current or voltage of an electrical signal or the electrical resistance of a circuit, the instrument comprising a plurality of measurement means (15) each associated with a predetermined variable, and device (20) for selection of the variable to be measured, characterized by the fact that selection device (20) has touch-sensitive zones (21) for selection of the variable to be measured, and a means (22) of activating measurement means (15) associated with the variable selected with the aid of touch-sensitive selection zones (21).

2. Instrument according to Claim 1, characterized by the fact that activating means (22) includes microprocessor (23), each touch-sensitive selection zone (21) positioning a solid-state or electromechanical relay in order to act on microprocessor (23).

3. Instrument according to Claim 2, characterized by the fact that it comprises a plurality of input sockets, the activation means (22) comprising switching circuit (24) connecting the input sockets to measurement means (15) and whose configuration is controlled by microprocessor (23) as a function of the commands from touch-sensitive selection zones (21).

4. Instrument according to any one of Claims 1 to 3, characterized by the fact that the variables are subdivided into several families, touch-sensitive selection zones (21) comprising touch-sensitive family zones (211) allowing one to select a family of variables, and touch-sensitive menu zones (F1 to F5) allowing one to select a variable within a family.

5. Instrument according to any one of Claims 1 to 4, characterized by the fact that it has a means of measuring of the electrical current, input socket Ampère (41) used at least when the current measurement means is selected, measurement cord (44) selectively connected by connecting end (45) to one of the sockets, and a means for detecting the connection of connecting end (45) of the cord to input socket Ampère (41).

6. Instrument according to Claim 5, characterized by the fact that Input socket Ampère (41) has two half-sockets (411) electrically isolated from one another, connecting end (45) of the cord being equipped with plug (48) for short-circuiting the two half-sockets (411) when connecting end (45) of the cord is connected to input socket Ampère (41), the detection means detecting the short-circuiting of the two half-sockets (411).

7. Instrument according to either of Claim 5 or 6, characterized by the fact that activation means (22) automatically activates the current measurement means provided that the detection means detects the connection of connecting end (45) of the cord to Ampère input socket (411) and that the current was selected by means of device (20) for selection of the variable to be measured.

8. Instrument according to either of Claim 6 or 7, characterized by the fact that one of the two half-sockets (411) of input socket Ampère (41) can be electrically connected to a reference input socket via series-connected main fuse (F1) and secondary fuse (F2), secondary fuse (F2) being destroyed at a voltage at least twice as small as that of main fuse (F1).

9. Instrument according to any one of Claims 1 to 8 combined with Claim 4, characterized by the fact that touch-sensitive family zones (211) are arranged in a circle.

10. Instrument according to Claim 9, characterized by the fact that it comprises light indicators (34) arranged in a circle in the vicinity of touch-sensitive family zones (211), indicating the family to which the active measurement means belongs.